Amendments to the Specification

Please replace the Abstract with the following paragraph:

A system and method ~~that~~ <u>for</u> detecting ~~the~~ location ~~as well as the~~ <u>and</u> luminance transition range of slant image edge in a digital image. The variance value for the pixels inside a window in the image is calculated. ~~Based~~<u>, based</u> on ~~the variance value,~~ <u>which</u> a current pixel ~~can be~~ <u>is</u> classified ~~as being in an edge region or in a non-edge region~~. If the current pixel is in a non-edge region, no further checking is needed, otherwise binary pattern data is generated from the pixels inside the window. Then it is determined whether the current pixel is a center pixel in a luminance transition range of a slant edge based on the binary pattern data at the current pixel location and its neighboring binary pattern data. ~~It is determined if~~ <u>If</u> the current pixel is the center pixel in a luminance transition range of a ~~e.g. ±45° direction edge. If it is, then no further processing is needed at the current pixel location and the luminance transition range is considered as 3 pixels wide. Otherwise, based on the neighboring binary pattern data, another checking process is performed to determine whether the current pixel is a center pixel in a luminance transition range other than a ±45°~~ slant edge. ~~If the current pixel is considered as a center pixel in a luminance transition range other than a ±45° slant edge~~, then the length of the luminance transition range of the slant edge is determined ~~by checking more binary pattern data inside the window~~.